



Available online at www.sciencedirect.com

SCIENCE @ DIRECT®

Aquaculture 239 (2004) 533–535

www.elsevier.com/locate/aqua-online

Aquaculture

Contents of *Aquaculture*, Volume 239

VOL. 239 NOS. 1–4

30 September 2004

Diseases

- A comparison of oxolinic acid concentrations in farmed and laboratory held rainbow trout (*Oncorhynchus mykiss*) following oral therapy
R. Coyne, O. Samuelsen, H. Kongshaug, K. Andersen (Bergen, Norway), I. Dalsgaard (Frederiksberg, Denmark), P. Smith (Galway, Ireland) and Ø. Bergh (Bergen, Norway) 1
- Elimination of shrimp endogenous alkaline phosphatase background and development of enzyme immunoassays for the detection of white spot syndrome virus (WSSV)
W. Zhan, X. Wang, J. Chen, J. Xing (Qingdao, China) and H. Fukuda (Tokyo, Japan). 15
- On the validity of setting breakpoint minimum inhibition concentrations at one quarter of the plasma concentration achieved following oral administration of oxytetracycline
R. Coyne, O. Samuelsen, Ø. Bergh, K. Andersen (Bergen, Norway), L. Pursell (Galway, Ireland) I. Dalsgaard (Frederiksberg, Denmark) and P. Smith (Galway, Ireland). 23
- Effects of feeding regime on susceptibility of Atlantic salmon (*Salmo salar*) to cold water vibriosis
B. Damsgård, U. Sorum (Tromsø, Norway), I. Ugelstad (Tromsø, Oslo, Norway), R.A. Eliassen (Bodo, Norway) and A. Mortensen (Tromsø, Norway). 37
- Toxicity and therapeutic effects of chloramine-T for treating *Flavobacterium columnare* infection of goldfish
I. Altinok (Trabzon, Turkey). 47
- Seasonal changes of *Perkinsus* and *Cercaria* infections in the Manila clam *Ruditapes philippinarum* from Jeju, Korea
T.T.T. Ngo and K.-S. Choi (South Korea). 57

Genetics

- cDNA cloning and mRNA expression of the lipopolysaccharide- and beta-1,3-glucan-binding protein gene from scallop *Chlamys farreri*
J. Su (Qingdao, PR China; Beijing, PR China; Yangling, PR China), L. Song (Qingdao, PR China), W. Xu, L. Wu (Qingdao, PR China; Beijing, PR China) H. Li and J. Xiang (Qingdao, PR China). . 69

Husbandry and Management

- Seven year remediation study at the Carrie Bay Atlantic salmon (*Salmo salar*) farm in the Broughton Archipelago, British Columbia, Canada
K.M. Brooks, A.R. Stierns (Port Townsend, WA, USA) and C. Backman (Campbell River, BC, Canada) 81
- Optimizing fertilizer dose for rearing stage production of carps under polyculture
J.N. Bhakta, D. Sarkar, S. Jana and B.B. Jana (West Bengal, India) 125

Recovery of Siberian sturgeon yearlings after an acute exposure to environmental nitrite: changes in the plasmatic ionic balance, Na ⁺ -K ⁺ ATPase activity, and gill histology E. Gisbert (Sant Carles de la Ràpita, Spain), A. Rodríguez, L. Cardona (Barcelona, Spain), M. Huertas (Sant Carles de la Ràpita, Spain), M.A. Gallardo (Barcelona, Spain) C. Sarasquete (Cádiz, Spain), M. Sala-Rabanal, A. Ibarz, J. Sánchez, F. Castelló-Orvay (Barcelona, Spain)	141
Umbilical scarring in hatchling American alligators J.J. Wiebe, M.S. Sepúlveda, J.E. Buckland (Gainesville, FL, USA), S.R. Anderson (Starke, FL, USA) and T.S. Gross (Gainesville, FL, USA)	155
Mariculture of <i>Kappaphycus alvarezii</i> (Rhodophyta, Solieriaceae) color strains in tropical waters of Yucatán, México J. Muñoz, Y. Freile-Pelegrín and D. Robledo (Yucatán, Mexico)	161
Effect of fish size and hydraulic regime on particulate organic matter dynamics in a recirculating aquaculture system: elemental carbon and nitrogen approach M.A. Franco-Nava (Palavas-les-flots, Rennes, France), J.P. Blancheton (Palavas-les-flots, France), G. Deviller, A. Charrier, (Palavas-les-flots, France) and J.Y. Le-Gall (Rennes, France)	179
Composition and abundance of invertebrate benthic fauna in <i>Farfantepenaeus paulensis</i> culture pens (Patos Lagoon estuary, Southern Brazil) R. Soares, S. Peixoto, C. Bemvenuti, W. Wasielesky, F. D'Incao, N. Murcia and S. Suita (Rio Grande (RS), Brazil).	199
Soil solution sulfide control by two iron-oxide minerals in a submerged microcosm G. Ritvo (College Station, TX, USA), V. Shitumbanuma (Lusaka, Zambia) and J.B. Dixon (College Station, TX, USA)	217
Steps ahead for aquaculture development in Sub-Saharan Africa—the case of Nigeria M.A. Anetekhai, G.A. Akin-Oriola, O.J. Aderinola and S.L. Akintola (Logos, Nigeria)	237
Effects of different antifungal treatments on artificial incubation of the astacid crayfish (<i>Pacifastacus leniusculus</i> Dana) eggs J.D. Celada, J.M. Carral, M. Sáez-Royuela, P.M. Melendre and A. Aguilera (León, Spain).	249
Separated breeding of perch fingerlings (<i>Perca fluviatilis</i> L.) with and without initial inflated swim bladder: comparison of swim bladder development, skeleton conformation and growth performances F. Jacquemond (Poisy, France)	261
Distribution of bacteria involved in nitrogen and sulphur cycles in shrimp culture systems of West Bengal, India T.J. Abraham, S. Ghosh, T.S. Nagesh and D. Sasmal (West Bengal, India).	275
Nutrition	
A comparative ecophysiological study of two infaunal filter-feeding bivalves: <i>Paphia rhomboïdes</i> and <i>Glycymeris glycymeris</i> M. Savina (Plouzané, France) and S. Pouvreau (Argenton, France)	289
Testing feeds and feed ingredients for juvenile pink shrimp <i>Farfantepenaeus paulensis</i> : in vitro determination of protein digestibility and proteinase inhibition D. Lemos (São Paulo, Brazil), A. Navarrete del Toro, J.H. Córdova-Murueta and F. García-Carreño (La Paz, Mexico)	307
Limitations on the use of shrimp <i>Litopenaeus vannamei</i> midgut gland extract for the measurement of in vitro protein digestibility S. Divakaran, I.P. Forster and M. Velasco (Waimanalo, HI, USA)	323
Feed intake, growth, and protein utilisation by post-smolt Atlantic salmon (<i>Salmo salar</i>) in response to graded levels of fish protein hydrolysate in the diet S. Refstie (Sunndalsøra, Norway), J.J. Olli (Karasjok, Norway) and H. Standal (Fredrikstad, Norway)	331
Nutritional and bacterial profiles of juvenile <i>Artemia</i> fed different enrichments and during starvation A.J. Ritar (Taroona, Australia), G.A. Dunstan, M.M. Nelson, M.R. Brown, P.D. Nichols (Hobart, Australia), C.W. Thomas, E.G. Smith, B.J. Crear (Taroona, Australia) and S. Kolkovski (Western Australia, Australia).	351

<i>Litopenaeus vannamei</i> juveniles energetic balance and immunological response to dietary proteins C. Pascual (Mérida, Mexico), E. Zenteno (México, Mexico), G. Cuzon (Tahiti, French Polynesia), J. Suárez, A. Sánchez, G. Gaxiola, G. Taboada (Mérida, Mexico), T. Maldonado (Universidad Autónoma de Campeche, Mexico) and C. Rosas (Mérida, Mexico)	375
Physiology and Endocrinology	
Gonad formation, sex differentiation and gonad maturation processes in artificially produced juveniles of the abalone, <i>Haliotis discus hannai</i> M. Awaji and K. Hamano (Kanazawa, Japan)	397
Evaluation of the effects of serotonin (5-HT) on oocyte competence in <i>Ruditapes decussatus</i> (Bivalvia, Veneridae) L. Hamida, M.-N. Medhioub (Route De Khniss, Tunisia), J.C. Cochard and M.L. Pennec (Plouzané, France)	413
Comparative blood chemistry and histopathology of tilapia infected with <i>Vibrio vulnificus</i> or <i>Streptococcus iniae</i> or exposed to carbon tetrachloride, gentamicin, or copper sulfate C.-Y. Chen, G.A. Wooster and P.R. Bowser (Ithaca, NY, USA)	421
Staging of Atlantic halibut (<i>Hippoglossus hippoglossus</i> L.) from first feeding through metamorphosis, including cranial ossification independent of eye migration Ø. Sæle (Bergen, Norway), J.S. Solbakken (Storebo, Norway), K. Watanabe, K. Hamre (Bergen, Norway), D. Power (Faro, Portugal) and K. Pittman (Bergen, Norway)	445
Can feeding status and stress level be assessed by analyzing patterns of muscle activity in free swimming rainbow trout (<i>Oncorhynchus mykiss</i> Walbaum)? W.J. McFarlane, K.F. Cubitt (West Vancouver, British Columbia, Canada), H. Williams, D. Rowsell (St. John's, Newfoundland, Canada), R. Moccia (Guelph, Ontario, Canada), R. Gosine (St. John's, Newfoundland, Canada) and R.S. McKinley (West Vancouver, British Columbia, Canada)	467
Silicone implants for delivery of estradiol-17 β and 11-ketotestosterone to red seabream <i>Pagrus major</i> S. Yamaguchi (Fukuoka, Japan), H. Kagawa (Nansei, Japan), K. Gen, K. Okuzawa (Tamaki, Japan) and M. Matsuyama (Fukuoka, Japan)	485
Effect of different temperature regimes on metabolic and blood parameters of silver catfish <i>Rhamdia</i> <i>quelen</i> C.L. Lermen, R. Lappe, M. Crestani, V.P. Vieira, C.R. Gioda, M.R.C. Schetinger, B. Baldissierotto (Santa Maria, Brazil), G. Moraes (São Carlos, Brazil) and V.M. Morsch (Santa Maria, Brazil)	497
Behavioral and physiological assessment of low concentrations of clove oil anaesthetic for handling and transporting largemouth bass (<i>Micropterus salmoides</i>) S.J. Cooke (Champaign, IL, USA), C.D. Suski (Ontario, Canada), K.G. Ostrand (Champaign, Kinmundy, IL, USA), B.L. Tufts (Ontario, Canada) and D.H. Wahl (Sullivan, IL, USA)	509
Erratum	
Erratum to "Genetic variation for juvenile growth and survival in Atlantic cod (<i>Gadus morhua</i>)" [Aquaculture 236 (2004) 167–177] B. Gjerde (Ås, Norway), B.F. Terjesen, Y. Barr, I. Lein and I. Thorland (Sunndalsøra, Norway)	531
Contents of Aquaculture, Volume 239.	533

